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PROPOSAL FOR A NEW REGULATION FOR VEHICLES INDOOR AIR QUALITY (VIAQ)

Note: This document contains a proposal to develop a new global technical regulation (VIAQ)

## **A. BACKGROUND**

For construction of indoor space of vehicles, a variety of interior materials and adhesives are being used, and various chemical materials are employed as a raw material for their components. Therefore, various kinds of chemical substances must be emitted from the interior materials inside the completed vehicles, and some of the emitted chemical substances contain substances such as Volatile Organic Compounds(VOCs) or Aldehydes that are harmful to human body. Particularly, in early stages, there are characteristics where even a relatively greater quantity chemical substances are emitted.

While there are deviation in the extent or depending on individuals for the substances harmful to human body that are emitted inside vehicles, they generally cause the symptoms such as nausea, allergy, fatigue, stinging eyes, headache. Such symptoms may not only affect drivers' health but also safe driving.

Therefore, to secure consumers' health and safe driving environment against harmful substances for human body, discussions by the international community are needed for enactment of new related regulations to minimize emission of the harmful substances upon manufacturing vehicles.

## **B. PROPOSAL**

Purpose of the proposal by Korea is to enact new GTR(Global Technical Regulation) based on 1998 agreement concerning the standard for protecting drivers and passengers from the harmful substances emitted from indoor interior materials for vehicles along with the measurement method for its affirmation through forming a working group.

In enactment of GTR, specifying kinds and allowed ranges for the subject substances in relation to the standard and determining conditions for the measured vehicles, measuring environments, sample collection methods and analysis methods, etc. will be major tasks for the working group, and Korea promises the maximum cooperation and participation in the working group's activities.

## **C. EXISTING REGULATIONS AND INTERNATIONAL STANDARDS**

### Korea Regulation:

- Automobile Management Act Article 33\_3, 18 December 2012 “Indoor air quality management for newly produced vehicles”
- Ministry of Land, Infrastructure and Transport Announcement No. 2007\_539, 5 June 2007 “Indoor air quality management guideline for newly produced vehicles”

China Regulation:

HJ/T 400\_07 December 2007 "Determination of Volatile Organic Compounds and Carbonyl Compounds in Cabins of Vehicles"

GB/T 27630-2011 01 March 2012 "Guideline for air quality assessment of Passenger car"

ISO Standards:

ISO 12219\_1:2012 "Interior air of road vehicles -- Part 1:Whole vehicle test chamber – Specification and method for the determination of volatile organic compounds in cabin interiors "

**D. JUSTIFICATION**

Currently, many vehicle manufacturers are already performing management for the harmful substances generated from interior materials of vehicles with their own standards, and Korea and China are operating guidelines on the national level are operating while Japan operates them on a civil level. Recently(in 2012), in particular, ISO(International Organization for Standardization) has also enacted measurement standards on the harmful substances for human body as generated from interior materials of vehicles.

Therefore, it is convinced that the working group will conduct comprehensive studies for the existing individual contents regarding management of indoor air quality management for vehicles, and derive enactment of new GTR to provide drivers and passengers with better driving environments for vehicles, and to enable more cost-effective management for the vehicle industry through unification of standards and measurement methods.

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