

# 中华人民共和国国家标准 NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 39897-2021

Determination of Volatile Organic Compounds and Aldehydes and Ketones in Nonmetallic Parts of Vehicles 车内非金属部件挥发性有机物和醛酮类物质检测方法

Issued on 2021-03-09

Implemented on 2021-10-01

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## Determination of Volatile Organic Compounds and Aldehydes and Ketones in Nonmetallic Parts of Vehicles

#### 1 SCOPE

This standard specifies the terms and definitions, sample preparation, packaging, transportation, and acceptance, pretreatment and sampling methods, determination and calculation of results, as well as test report with respect to the determination of volatile organic compounds and aldehydes and ketones in nonmetallic parts of vehicles.

This standard is applicable to the sampling and determination of volatile organic compounds and aldehydes and ketones in nonmetallic parts of passenger compartment and luggage compartment of the vehicles in categories  $M_1$  and  $N_1$ , while other category of vehicles may use this standard as a reference.

#### 2 NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this document. For dated references, only the editions cited apply. For undated references, the latest editions of the normative document (including any amendments) apply.

GB/T 6388-1986 Transport package shipping mark

GB/T 15089 Classification of power-driven vehicles and trailers

#### 3 TERMS AND DEFINITIONS

For the purpose of this document, the terms and definitions given in GB/T 6388-1986 and GB/T 15089 as well as the followings apply.

3.1 volatile organic compounds (VOCs)

the collective name for the compounds, e.g., benzene, methylbenzene, ethylbenzene, xylene, and styrene, etc., measured according to Annex A

3.2 aldehydes and ketones

the collective name for the compounds, e.g., formaldehyde, acetaldehyde, and acrolein, etc., measured according to Annex B

total hydrocarbons

all volatile hydrocarbons measured using flame ionization detector (FID)

bag method

3.3

3.4

a test method of containing the sample in a fluoroplastic (e.g., Teflon, polyvinyl fluoride, or Teflon-hexafluoropropylene copolymer) sampling bag of a specific size, seal the bag after being inflated with appropriate amount of nitrogen, and heat the bag at the given temperature to collect gas



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