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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 14454.2-2008

Replacing GB/T 14454.2-1993

Fragrance/Flavor substances - Method for valuation of odour

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Foreword

GB/T 14454, Fragrance/Flavor substances - General test methods, comprises the following parts. -- Part

1 Scope

GB/T 14454.2-2008 is the Chinese national standard on fragrance/flavor substances - method for valuation of odour, in the field of chemical technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 15 July 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 December 2008. Classification: ICS 71.100.60, CCS Y41. This page is published from the official record of

the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

The first method of this Part of GB/T 14454 specifies the triangle valuation method to valuate and determine the differences between the odours of sample to be tested and standard sample, which applies to the routine control of the odours of fragrance/flavor substances. The second method of this Part specifies the paired comparison test method to valuate and determine the differences between the odours of sample to be tested and standard sample, which applies to the routine control of the odours of fragrance/flavor substances. Method I -- The triangle valuation method

2 Terms and definitions

For the purposes of this Part of

GB/T 14454, the following terms and definitions apply.

2.1 method of triangle valuation Mark 4 fragrance blotters respectively; use 2 fragrance blotters to dip in sample to be tested; use another 2 fragrance blotters to dip in standard sample; and then mix the 4 fragrance blotters together. Take one and reserve 3 randomly and let the valuator to find the fragrance blotter whose odour is different.

2.2 wet method The valuation of fragrance blotters which are prepared just a short moment ago (within 10 min after being dipped in sample), is called wet method.

3 Principle

Compare samples to be tested and standard samples; and valuate whether the odour of samples to be tested is acceptable, in accordance with the significant differences of the odours of the two.

4.1 Valuation room

4.1.1 The interior facilities shall be made of odourless, non-absorbent and non-odoriferous construction materials. Washing facilities shall be provided inside the room.

4.1.2 The valuation room shall be closely adjacent to sample preparation area; and the colour of wall and the colour of interior facilities shall be neutral. The use of milk white or neutral light gray is recommended.

4.2.1 Selection of valuator

a) The valuator shall be healthy who shall have normal olfactory sensitivity and interest in sensory analysis;

4.2.3 Requirements for valuator before odour valuation

4.3 Solvents If necessary, select ethyl alcohol, benzyl alcohol, benzyl benzoate, diethyl phthalate, isopropyl myristate or water as the solvents in accordance with different fragrance/flavor types.

4.4 Fragrance blotter Use clean, contamination-free fragrance blotters. Use quality odourless, absorbent paper (of thickness about

0.5 mm); and cut into strips which are

0.5 cm ~

0.8 cm wide and 10 cm ~ 15 cm long.

5 Fragrance/Flavor substances - Determination of optical rotation; -- Part

6. Fragrance/Flavor substances - Quantitative evaluation of residue on evaporation; -- Part

5.1 Liquid fragrance/flavor substances

5.1.1 The presider shall first ensure the valuation environment is as specified and then notify the members of the valuation team. The time is preferably the middle period of the morning or afternoon.

5.1.6 The presider mixes the four fragrance blotters dipped into samples crossly; and during the process, avoid mutual contact and cross contamination of the ends dipped into samples.

5.1.7 During valuation, attention is drawn to that the distance from the fragrance blotters to the nose is maintained at 1 cm ~ 2 cm; do not let the fragrance blotters contact the nose; and inhale slowly. When the valuator feels olfactory fatigue, they may smell their own sleeve.

5.1.8 The sample liquid of one of the remaining three fragrance blotters is certainly from the different sample. The valuator shall find the fragrance blotter having the different odour in accordance with their own olfactory sense.

5.2 Solid fragrance/flavor substances

5.2.1 Liquid fragrance/flavor substances may be marked with clean white paper without a peculiar odour before placing sample; and carry out valuation directly. Massive, crystal samples shall be valuated after being ground into powder.

5.2.2 Solid fragrance/flavor substances may also be valuated with fragrance blotters after standard sample and sample to be tested are diluted to the solution of the same

concentration using a solvent (4.3).

6 Expression of results

6.1 If valuation is not carried out by the valuers together, the valuers may give their own opinions according to the valuation results.

6.2 If the valuation is carried out by the team members together, then determine whether the fragrance blotter drawn during the triangle valuation is correct or not. If the one drawn from the three fragrance blotters left by the valuers is from the different sample, then the result is deemed correct.

6.3 Analysis of results Original hypothesis. it is impossible to distinguish two samples in accordance with the characteristic strength. The probability of correct recognition under the circumstances is $P_0 = 1/3$.

6.4 If the valuation results of standard sample and sample to be tested show the sample to be tested is within the unacceptable range, and the sample to be tested is deemed as the representative correct sample after verification, then use standard sample and sample to be tested of last batch to carry out valuation, in order to avoid the erroneous determination of the odour of the sample to be tested while standard sample is contaminated, aged or spoiled.

7 Principle

Through odour valuation, verify whether the odour of sample to be tested comply with standard sample; and attention is drawn to the identification of thickness, strength, miscellaneous odour, adulteration and metamorphism of its odour.

8 Standard sample, solvent and fragrance blotter

8.1 Standard sample Select all kinds of fragrance/flavor products as the standard sample which are the most representative of the current production quality level. When the quality changes, they shall be replaced in time.

8.2 Solvents If necessary, select ethyl alcohol, benzyl alcohol, benzyl benzoate, diethyl phthalate, isopropyl myristate or water as the solvents in accordance with different fragrance/flavor types.

8.3 Fragrance blotter Use clean, contamination-free fragrance blotters. Use good quality odourless, absorbent paper (of thickness about

0.5 mm); and cut into strips which are

0.5 cm ~

0.8 cm wide and 10 cm ~ 15 cm long.