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

SN/T 2334-2009

**Food contact materials. Polymers materials. Test methods for
overall migration into olive oil by total immersion**

食品接触材料 高分子材料 橄榄油中总迁移量的试验方法 全浸没法

(English Translation)

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Foreword

This standard is identical with EN1186-2:2002 "Test methods for plastic food contact materials and articles the overall migration in olive oil Total immersion "(in English).

In order to meet China's national conditions and ease of use, this standard does the following editorial changes, the main differences are as follows.

- a) Remove the BSEN1186-2:2002 in the previous page, directory, foreword, introduction, appendix ZA, references and after page;
- b) In the "standard" instead of EN1186-2. in 2002, "This part of this standard";
- c) Adjustment of Chapter 4 Reagents number and order to adapt to China's national standards for the preparation requirements;
- d) instead of as a decimal by decimal comma ",", ".", " ";
- e) "ml" changed to "mL" representation;
- f) Chapter 3 of the Articles respectively BSEN1186-2:2002 paragraphs of Chapter 3;
- g) 6.1,6.2,6.3,6.4,7.1,7.3,7.5 and 8.1 respectively in Articles BSEN1186-2:2002 Section 6.1,6 .2, the 6.3,6.4,7.1,7.3,7.5 8.1 and paragraphs;
- The h) 7.6.1 Articles correspond BSEN1186-2:2002 paragraphs of Section 7.6.1;
- i) in 7.6.2.2 and 7.6.2.3 respectively Articles BSEN1186-2. paragraphs 7.6.2.2 and 7.6.2.3 of the 2002 first article;
- j) in accordance with the referenced EN1186-1. provision of content-2002 No references to the provisions to be adjusted accordingly;
- k) in accordance with the provisions of the note number of national standards for the preparation of the requirements to be adjusted.

The Standard Appendix A, Appendix B, Appendix C, Appendix D is a normative appendix, Appendix E, Appendix F for the informative appendix.

This standard is proposed and managed by the National Certification and Accreditation

Administration Committee.

1 Scope

This standard specifies the food contact material at the selected time in more than 20 °C and less than 100 °C temperature conditions of the polymer material ---Material or article in fatty food simulants olive oil in the overall migration by total immersion measurement method.

This standard is most suitable for use in food contact materials --- polymer material films or sheets, but also for the majority of the appropriate size can be cut again Member of the container or article.

NOTE: The standard for the use of olive oil and fat mimetic that is prepared, after appropriate changes may be other fatty food simulants Food simulant D for call Material such as synthetic mixture of triglycerides, sunflower oil and corn oil. These other fatty food simulants will produce the olive oil methyl ester is not Mimetics with methyl esters chromatogram. Select the appropriate other fatty food simulants methyl ester peaks for the sample extracted from the mimetic it was measured.

This standard is applicable to most types of food contact materials --- polymer materials.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

Part 1 of plastic food contact materials 2002.. EN1186-1 Test methods for overall migration conditions Selection Guide EN10088 Stainless Steel ENISO 8442-2:1997 Food contact materials cutlery and tableware concave Part 2. requirements for stainless steel and silver-plated cutlery ISO 648 Laboratory glassware single reticle pipette ISO 4788 laboratory glassware graduated cylinder Principle 3

3.1 Determination of food contact materials intended for food contact --- mass loss per unit area of a sample of polymer materials, food contact material obtained the total amount of material --- Migration polymer material samples.

3.2 According to the conditions of use determines whether the selected test conditions, see EN1186-1:2002 in Chapters 5 and 6.

In the more than 3.3 and less than 20 °C 100 °C temperature range, the known weight of the sample is exposed to a time immersed in olive oil, the olive from Olive oil removed, olive oil to remove adhering surface, re-weighed.

3.4 specimens usually leave olive oil adsorption. Olive oil extraction adsorbed, and converted to methyl esters by gas chromatography after quantitated using set. By boron trifluoride/methanol mixture with a fatty acid (produced by the hydrolysis of potassium hydroxide oil) methylation reaction process. It is sucked and extracted Prior to attachment of olive oil, add internal standard heptadecanoic acid triglyceride, to ensure that any active substance or extractable food contact materials --- scores Sub-component material can also be obtained with the extraction of olive oil as the internal standard response. The same will happen in the standard hydrolysis and methylation reactions, which can be corrected Positive hydrolysis and methylation process invalid response.

3.5 Sample subtracted from the initial mass of the sample in the quality of olive oil through the net after soaking, to obtain overall migration after (sample was soaked in olive oil Net mass. mass of the sample was removed from the olive oil by subtracting the mass of olive oil adsorbed on the sample).

The total mass loss of 3.6 milligrams per square decimeter sample surface area (mg/dm²) said the overall migration of at least three separate measurement sample knot Reports the average fruit.

3.7 Taking into account the testing process will produce an error and this error is difficult to detect, such as sample loss or contamination of the oil phase, it is estimated to