



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

GB 31626-2014

**National Food Safety Standard -- Food Additives -- Benzyl
Salicylate**

食品安全国家标准 食品添加剂 水杨酸苄酯（柳酸苄酯）

(English Translation)

Issued on: December 24, 2014

Implemented on: May 24, 2015

**Issued by: National Health and Family Planning Commission of the
People's Republic of China**

Table of Contents

- 1 Scope
- 2 Chemical name, molecular formula, structural formula and relative molecular mass
 - 2.1 Chemical Name
 - 2.3 Formula
 - 2.4 Molecular Weight
- 3 Technical requirements
 - 3.1 Sensory requirements
 - 3.2 Physical and Chemical Indicators

1 Scope

This standard is applicable to water from the food additive sodium salicylate and benzyl chloride as starting material was obtained or derived from the acid esterified with benzyl alcohol Benzyl ester of salicylic acid (salicylic acid benzyl ester).

2.1 Chemical Name

2-hydroxybenzoic acid benzyl ester.

Formula 2.2

C₁₄H₁₂O₃

2.4 Molecular Weight

228.25 (according to 2007 international relative atomic mass).

3.1 Sensory requirements

Shall comply with the requirements in Table 1.

Table 1 Sensory requirements

Project requires test methods Color status colorless Oily liquid the sample was placed in a cuvette, were visually observed Faint aroma of sweet GB/T 14454.2

3.2 Physical and Chemical Indicators

Shall be in accordance with Table 2.

Table 2. Physical and chemical indicators

Item Index Test Method Benzyl salicylate (salicylic acid benzyl ester) content (w) /% ≥ 98
Appendix A Acid number (as KOH)/(mg/g) ≤ 1.0 GB/T 14455.5 Refractive index (25 °C)
1.573 ~ 1.584 GB/T 14454.4 Relative density (25 °C/25 °C) 1.173 ~ 1.183 GB/T 11540
Appendix A Determination of benzyl salicylate (salicylic acid benzyl ester) content A.1
instruments and equipment A.1.1 Chromatography. in GB/T 11538-2006 specified in
Chapter 5.

A.1.2 Column. capillary column.

A.1.3 Detector. hydrogen flame ionization detector.

A.2 Determination

Area normalization method. Press the GB/T 11538-2006 Determination 10.4.

A.3 repeatability and results are expressed 11538-2006 carried out in accordance with the
provisions of 11.4 GB/T , should meet the requirements.

Benzyl salicylate food additives typical gas chromatogram (area normalization method)
Appendix B.

Appendix B

Food additive benzyl salicylate (salicylic acid benzyl ester) A typical gas chromatogram
(Area normalization method) B.1 food additives benzyl salicylate (salicylic acid benzyl
ester) A typical gas chromatogram Food additive benzyl salicylate (salicylic acid benzyl
ester) A typical gas chromatogram is shown in Figure B.1.

A typical gas chromatogram of FIG B.1 food additives benzyl salicylate (salicylic acid benzyl
ester) B.2 operating conditions B.2.1 Column. capillary column, 30m x 0.25mm. Or other
equivalent column.

B.2.2 stationary phase. 5% phenyl methyl polysiloxane.

B.2.3 film thickness. 0.25 μ m.

B.2.4 chromatographic oven temperature. 200 °C thermostat.

B.2.5 Inlet temperature. 250 °C.

B.2.6 Detector temperature. 280 °C.

B.2.7 Detector. hydrogen flame ionization detector.

B.2.8 Carrier gas. nitrogen purity of 99.99% or more.

B.2.9 carrier gas flow rate. 1.0mL/min.

B.2.10 Injection volume. 0.2 μ L.

B.2.11 Split ratio. 100.