

ICS 71.100.40

QB

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

QB/T 2945-2012

**Oral rinses
(English Translation)**

Issued on: December 28, 2012

Implemented on: June 1, 2013

**Issued by: Ministry of Industry and Information Technology of the
People's Republic of China**

Table of Contents

Foreword...	3
1 Scope...	4
2 Normative references...	4
3 Product classifications...	5
4 Requirements...	5
5 Test methods...	6
6 Inspection rules...	10
7 Marks, packaging, transport, storage, shelf life...	11

1 Scope

This Standard specifies classifications, requirements, test methods, inspection rules and marks, packaging, transport, storage as well as shelf life for oral rinses.

This Standard is applicable to various liquid products used for oral cleaning and care, such as mouthwash and oral spray.

2 Normative references

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

GB/T 191, Packaging and storage marks

GB/T 601, Chemical reagent - Preparations of standard volumetric solutions

GB/T 602, Chemical reagent - Preparations of stock standard solutions

GB/T 603, Chemical reagent - Preparations of reagent solutions for use in test methods

GB/T 6682, Water for laboratory use - Specifications

GB 8372, Toothpaste

GB 22115, General requirements on raw materials of toothpastes

JJF 1070-2005, Rules of Metrological Testing for Net Quantity of Products in

Prepackages with Fixed Content

No. 75 Order of General Administration of Quality Supervision, Inspection and Quarantine

[2005], Quantitative Packaging Commodity Measurement

Supervision and Management Measures

Ministry of Health of the People's Republic of China, Cosmetic hygiene specification (2007)

5.1 Fragrance

Smell to identify the fragrance.

5.2 Clarity

At room temperature and under natural lights, pour 25 ml of sample into the color comparison tube. Observe with naked eyes at a distance of 30 cm from the tube.

5.3.1 Instruments

- a) Constant temperature incubator: accuracy is $\pm 1^{\circ}\text{C}$;
- b) Refrigerator: accuracy is $\pm 1^{\circ}\text{C}$;
- c) Color comparison tube with stopper: 50 ml.

5.3.2 Heat-resistance stability

Pour 25 ml of sample into the color comparison tube. Place it in the constant temperature incubator at $(40 \pm 1)^{\circ}\text{C}$ for 24 h. Take it out and recover to room temperature. Observe it with naked eyes.

5.3.3 Cold-resistance stability

Pour 25 ml of sample into the color comparison tube. Place it in the refrigerator at $0^{\circ}\text{C} \sim 4^{\circ}\text{C}$ for 24 h. Take it out and recover to room temperature. Observe it with naked eyes.

5.4 pH

5.4.1 Apparatus

The following apparatus are used in the test:

- a) pH meter: accuracy is 0.02 pH units;
- b) Thermometer: accuracy is 0.2°C ;
- c) Balance: accuracy is 0.01 g.

5.4.2 Measurement methods

For normal-type products: Directly place 20 ml of sample into the 50 ml beaker to make electrodes immersed. Use pH meter to measure at 25°C.

For concentrated-type products: Weigh 5 ml of sample to dissolve in water. Use

5.5.4 Determination of free fluorine

Pipette 10 ml of test solution into 50 ml volumetric flask. Add 5 ml of citrate buffer. Use ionized water to dilute to the scale. Move to 50 ml plastic beaker.

Under magnetic stirring, measure its potential value. Check the corresponding fluorine content on the standard curve. Calculate the concentration.

5.5.5 Determination of soluble fluorine

Pipette 0.5 ml of test solution. Move into 2 ml microcentrifuge tube. Add 0.7 ml of 4 mol/L hydrochloric acid. Cover the centrifuge tube. Perform water bath for

10 min at 50°C. Move to 50 ml volumetric flask. Add 0.7 ml of 4 mol/L sodium hydroxide to neutralize. Add 5 ml of citrate buffer. Use ionized water to dilute to the scale. Move to 50 ml plastic beaker. Under magnetic stirring, measure its potential value. Check the corresponding fluorine content on the standard curve.

Calculate the concentration.

5.5.6 Calculation

Calculate free fluorine and soluble fluorine according to formula (1) and formula (2), respectively.

Where, anti log c - logarithm of fluorine content checked on standard curve, then take the opposite.

Convert the above calculation results into mass fractions.

5.5.7 Representation and determination of results

The allowable error of two parallel determination results is 5%. Take the arithmetic mean of the two tests as the measurement result.

5.6 Fluoride ion content

Fluoride ion content X is calculated according to formula (3):

Where,

X - Fluoride ion content in oral rinses, in milligrams per bottle (mg/bottle);

Free fluorine

Soluble fluorine c) Manufacturer name, address;

d) Reference to the standard used;

e) Fragrance;

f) Instructions for use;

g) Shelf life, production date or restricted use date and production batch;

h) Fluorine-containing mouthwash shall indicate the amount of fluorine added.

Fluorine-containing mouthwash for children shall be marked with warning text;

i) Product composition, in accordance with GB 8372.

7.1.2 The outer packaging shall have the following marks:

a) Product name, trademark;

b) Manufacturer name, address;

c) Packing quantity, gross weight;

d) Production date or restricted use date, production batch;

e) Packaging box specifications meet the requirements of GB/T 191.

7.2 Packaging

Without affecting the product quality, the product's packaging form and packaging materials are customized by the enterprise. The inner packaging materials that are in contact with the contents of the product shall comply with the relevant health and safety requirements.

7.3 Transport

Use clean means of transport to carry goods. Put goods carefully. Unload goods with care. Stack according to the arrow sign on the box. Avoid violent vibration, impact. Keep from solarization and rain.

7.4 Storage

Store the products in dry warehouse with good ventilation. Do not make them near fire and heating. Stack according to the arrow sign on the box. Do not make them upside down.