

ICS 03.180
CCS Y51

JY

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

JY/T 0452-2011

**Teaching glass instrument reagent bottle
(English Translation)**

Issued on: July 11, 2013

Implemented on: July 11, 2013

Issued by: Ministry of Education of the People's Republic of China

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

Please note that some elements of this standard may involve patents. The issuer of this standard should not be held responsible for identifying these patents.

This standard was proposed by the National Technical Committee for Standardization of Teaching Instruments (SAC/TC125).

This standard is under the jurisdiction of the National Technical Committee for Standardization of Teaching Instruments (SAC/TC125).

This standard was drafted. Sichuan Longchang Glass Instrument Factory, Zhejiang Educational Technology Center, Sichuan Ziyang Glass Instrument Factory, Sichuan Scientific industry teaching equipment limited liability company.

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Teaching glass instrument reagent bottle

1 Scope

This standard specifies the classification and naming of reagent bottles, technical requirements, test methods, inspection rules, packaging, transportation, and storage.

This standard applies to teaching reagent bottles.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this document.

For undated references, the latest version (including all amendments) applies to this document.

GB 191-2008 packaging storage and transportation pictogram GB/T 2828.1-2003 Counting sampling inspection procedures. Part 1. Sampling plan for batch inspection according to acceptance quality limit (AQL) JY 0001-2003 General quality requirements for teaching instruments and equipment products JY 0002 Inspection rules for teaching instruments and equipment products JY 0026-1991 teaching instrument and teaching equipment product model naming method JY/T 0423-2011 General quality requirements and test methods of teaching glass instruments

3.1 Product Classification

Divided into 30mL, 60mL, 125mL, 250mL, 500mL, 1000mL, 2500mL, 5000mL, 10000mL,.20000mL by volume There are ten specifications, which are divided into colorless and brown-yellow specifications according to the glass color.

3.2 Model designation

The model name of the product is in accordance with JY 0026-1991.

The model name of the reagent bottle is.

L - SJP - W/Z - 30

Product specifications (capacity), unit. mL Product feature code, colorless/brown-yellow Product name Pinyin prefix, reagent bottle Product model classification code, glass instrument Model example.

L-SJP-Z-60. Brown-yellow reagent bottle with a capacity of 60 mL.

4.1 Materials

It should be made of transparent or yellow-brown soda-lime glass, and colorless reagent bottles should have no obvious yellow-green.

4.2 Specifications

For the external dimensions and tolerances of various specifications of reagent bottles, small-mouth reagent bottles should conform to Table 1 and Figure 1; wide-mouth reagent

bottles should conform to Table 2 and Figure 2.

Table 1 Dimensions and tolerances of fine-mouth reagent bottles of various specifications are in millimeters

Part

30mL 60mL 125mL 250mL 500mL 1000mL 2500mL 5000mL 10000mL.20000mL Bottle full height H 82 ± 4 100 ± 5 120 ± 5 142 ± 6 172 ± 6 213 ± 8 284 ± 10 350 ± 15 429 ± 15 500 ± 15 Bottle height H 1 73 ± 3 90 ± 4 110 ± 4 130 ± 4 160 ± 5 200 ± 6 270 ± 8 333 ± 10 410 ± 13 488 ± 15 Bottle diameter D 38 ± 2 47 ± 2 54 ± 2 68 ± 2 83 ± 3 104 ± 3 142 ± 5 182 ± 5 212 ± 5 270 ± 5 Bottle mouth diameter d 15 ± 1 15 ± 1 20 ± 1 20 ± 1 25 ± 1 31 ± 1 37 ± 2 47 ± 2 58 ± 3 58 ± 3 Bottle thickness S 1 ≥ 1 ≥ 1 ≥ 1.2 ≥ 1.3 ≥ 1.3 ≥ 1.7 ≥ 2.0 ≥ 2.3 ≥ 2.7 ≥ 3.0 Bottle bottom thickness S 2 ≥ 1.5 ≥ 1.5 ≥ 1.8 ≥ 2.0 ≥ 2.0 ≥ 2.5 ≥ 3.0 ≥ 3.5 ≥ 4.1 ≥ 4.5

Table 2 Dimensions and tolerances of wide-mouth reagent bottles of various specifications in millimeters

Part

30mL 60mL 125mL 250mL 500mL 1000mL 2500mL 5000mL 10000mL.20000mL Bottle full height H 82 ± 4 100 ± 5 120 ± 5 142 ± 6 172 ± 6 213 ± 8 284 ± 10 350 ± 15 429 ± 15 500 ± 15 Bottle height H 1 70 ± 3 76 ± 4 100 ± 4 120 ± 4 160 ± 5 200 ± 5 260 ± 8 320 ± 10 400 ± 12 485 ± 15 Bottle diameter D 38 ± 2 47 ± 2 54 ± 2 68 ± 2 83 ± 3 104 ± 3 142 ± 4 182 ± 5 212 ± 5 260 ± 5 Bottle mouth diameter d 23 ± 1 27 ± 1 35 ± 1 45 ± 2 56 ± 2 66 ± 3 82 ± 4 98 ± 5 115 ± 6 115 ± 6 Bottle thickness S 1 ≥ 1 ≥ 1 ≥ 1.2 ≥ 1.3 ≥ 1.3 ≥ 1.7 ≥ 2.0 ≥ 2.3 ≥ 2.7 ≥ 3.0 Bottle bottom thickness S 2 ≥ 1.5 ≥ 1.5 ≥ 1.8 ≥ 2.0 ≥ 2.0 ≥ 2.5 ≥ 3.0 ≥ 3.5 ≥ 4.1 ≥ 4.5

Figure 1 Fine-mouth reagent bottle

Figure 2 Wide mouth reagent bottle

4.3 Appearance

4.3.1

The appearance defects allowed are shown in Table 3.

Table 3 Permissible appearance defects

Defect name

30 ML to 125 mL 250 mL to 500 mL 1000 mL to 2500 mL 5000 mL to 20,000 mL

Maximum diameter

Quantity

Maximum diameter

Quantity

Maximum diameter

Quantity

Maximum diameter

Quantity

Circle ≤ 4 ≤ 2 ≤ 5 ≤ 2 ≤ 6 ≤ 2 ≤ 7 ≤ 2 Ellipse ≤ 8 ≤ 2 ≤ 10 ≤ 2 ≤ 12 ≤ 2 ≤ 14 ≤ 2 2
nodules ≤ 2 ≤ 2 ≤ 2.5 ≤ 2 ≤ 3 ≤ 3 ≤ 3.5 ≤ 4

3 Stones ≤ 1.5 1 ≤ 1.5 1 ≤ 2 ≤ 3 ≤ 2.5 ≤ 2

4 Watermark ≤ 3 ≤ 2 ≤ 4 ≤ 2 ≤ 6 ≤ 2 ≤ 8 ≤ 2 Air bubbles, nodules, Stone and Water
Marking Allowed total ≤ 7 ≤ 7 ≤ 8 ≤ 10

6 Iron filings ≤ 1 ≤ 2 ≤ 1 ≤ 2 ≤ 1.5 ≤ 2 ≤ 1.5 ≤ 2

7 Shoulder collapse depth ≤ 3 mm Shoulder collapse depth ≤ 4 mm Shoulder collapse
depth ≤ 5 mm Shoulder collapse depth ≤ 6 mm 8 necking depth ≤ 4 mm necking depth
 ≤ 5 mm necking depth ≤ 7 mm necking depth ≤ 12 mm 9 stitching $h \leq 1$ mm, no sharp
edges $h \leq 1$ mm, no sharp edges $h \leq 1.5$ mm, no sharp edges $h \leq 1.5$ mm, no sharp edges
10 single stripes ≤ 4 ≤ 6 ≤ 8 ≤ 12

11 Crooked neck without obvious skew

4.3.2 The appearance defects that should not exist shall be in accordance with JY/T
0423-2011 Section 5.1.1.

4.3.3 The uniformity of wall thickness shall be in accordance with 4.1.1.2 of JY/T
0423-2011.

4.3.4 Matte surface. The bottle mouth is finely ground. The matte surface should be uniform
and delicate. The width of the light spots and rough sand marks should be less than 6mm
and the length should be less than 1/3 of the plug height.

Only two should be allowed and should not be concentrated in the middle and lower part of
the neck.

4.3.5 The color of the brown-yellow bottle shall comply with 5.6YR, 4.5/10 of Table 2 of GB
3181-2008. The color should be uniform.

4.4 Adhesiveness

Should meet the second level of tightness.