

ICS 97.180
CCS Y50



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

GB 21027-2020

Replacing GB 21027-2007

Request in common use of security for student's articles

学生用品的安全通用要求

Issued on: July 23, 2020

Implemented on: February 1, 2022

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

1 Scope
2 Normative references
3 Terms and definitions
4 Requirements
4.8 Pen sleeve safety
4.8.2 Pen sleeve size
4.9 Edge, tip
5 Test method
5.2 Limits of harmful substances in liquid glue, solid glue, paste
5.8 Pen sleeve safety
5.9 Edge, tip
6 Markings
Appendix A
Appendix B
Appendix C

1 Scope

GB 21027-2020 is the Chinese national standard on request in common use of security for student's articles, in the field of domestic and commercial equipment, entertainment, sport. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 23 July 2020 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 February 2022.

Classification: ICS 97.180, CCS Y50. 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.

This standard specifies the requirements, test methods, marking of student's articles. This standard applies to learning articles, which are used by students under the age of 14 (including 14 years old), including watercolor paints, crayons, oil pastels, colored clay, erasers, correction fluids, correction tapes, correction stickers, correction pens, liquid glues, solid glue, paste, watercolor pen, fountain pen, ink ballpoint pen, neutral ink ballpoint pen, water-based ink ballpoint pen, marker pen, whiteboard pen, highlighter, pencil, mechanical

pencil, ink, lead core, plotter ruler (straightedge, triangle ruler, scale ruler, protractor, drawing template, excluding T-square), student compasses, schoolwork books, book covers, school bags, pencil bags, stationery scissors, stationery boxes, manual pencil sharpeners, pencil sharpeners, utility knives, etc. This standard does not apply to stationery products, which are intended for students over 14 years old AND are used by professionals.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this standard.

GB/T 606 Chemical reagent - General method for the determination of water - Karl Fischer method

GB/T 1033.1 Plastics - Methods for determining the density of non-cellular plastics - Part

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Student's articles Supplies for students under 14 years old (including 14 years old), for the purposes of study.

4 Requirements

4.1 Limits of migratable elements The content of migratable elements, in student's article, shall not exceed the maximum limit requirements of the corresponding elements in Table

1. In the maximum limit of migratable elements, the printed, brushed, coated parts of accessible student's articles are exempted, when specimen, which is obtained from a single sample, is less than 10 mg.

4.2 Limits of harmful substances in liquid glue, solid glue, paste The maximum limit of harmful substances in liquid glue, solid glue, paste shall not exceed the requirements in Table 2.

4.3 Limits of harmful substances in correction fluid, correction tape, correction stickers, correction pens

4.3.1 The content of benzene shall not exceed 10 mg/kg.

4.4 Limits of harmful substances in fabrics and accessories used in school bags and pencil bags

4.5 Limits of phthalate plasticizers in accessible plastic parts The total content of three

phthalates. dihexyl phthalate (DEHP), dibutyl phthalate (DBP), butyl benzyl phthalate (BBP), in accessible plastic parts, shall not exceed 1000 mg/kg. For a single sample, if the sampling size of a single material is less than 10 mg, it can be exempted.

4.6 The limit of free formic acid in colored clay The content of free formaldehyde, in the colored clay, shall not exceed 500 mg/kg.

4.7 Brightness (whiteness) of schoolwork books The brightness (whiteness) of the workbook shall not be greater than 85%.

4.8 Pen sleeve safety

4.8.1 General requirements The pen sleeve shall meet at least one requirement of

4.9 Edge, tip

4.9.1 The top of stationery scissors and blades shall be arc tops, not sharp points.

4.9.2 For stationery scissors, manual pencil sharpeners, pencil sharpeners, student compasses, plotter rulers, utility knives, etc., if there are functional sharp edges and sharp points, due to indispensable functionality, it shall provide warning instructions. There shall be no other non-functional sharp edges and sharp points.

4.9.3 The accessible edges, corners or parting lines of stationery boxes, etc. shall not have sharp burrs, sharp tips or overflows, OR they shall be protected, so that they cannot be touched.

4.9.4 For the accessible edges of student's articles, including holes and grooves, they shall not have dangerous burrs or beveled edges, OR use them as folded edges, curled edges, or formed of curved edges, OR be protected with permanent protective parts or coatings.

4.9.5 The accessible ends of exposed bolts or threaded rods shall not have exposed sharp edges or burrs, OR their ends shall be covered with smooth nuts, so that sharp edges and burrs cannot be touched.

5 Test method

5.1 Limits of migratable elements The determination of the content of migratable elements shall be carried out, in accordance with the provisions of GB 6675.4-2014.

5.2 Limits of harmful substances in liquid glue, solid glue, paste

5.2.1 The determination of free formaldehyde content in the adhesive shall be carried out, in accordance with the provisions of GB/T 32606.

5.3 Limits of harmful substances in correction fluid, correction tape, correction stickers, correction pens

5.3.1 The determination of benzene content in correction products shall be carried out, in accordance with Appendix C.

5.4 Limits of harmful substances in fabrics and accessories used in school bags and pencil bags

5.4.1 The determination of free formaldehyde content in fabrics and accessories, which are used in school bags and pencil bags, shall be carried out in accordance with GB/T 32606.

5.5 Limits of phthalate plasticizers in accessible plastic parts The content of phthalate plasticizer, in accessible plastic parts, shall be determined, in accordance with GB/T 22048.

5.6 Limits of free formaldehyde in colored clay The determination of free formaldehyde content, in colored clay, shall be carried out, in accordance with GB/T 32606.

5.7 Brightness (whiteness) of workbook The brightness (whiteness) of the schoolwork books shall be determined, in accordance with the provisions of GB/T 7974.

5.9 Edge, tip

5.9.1 The test of sharp edge shall be conducted, in accordance with

5.8 of GB 6675.2-2014.

5.9.2 The test of sharp tip shall be carried out, in accordance with

5.9 of GB 6675.2-2014.

6 Markings

6.1 The markings shall be clear, easy to read, durable.

6.2 For all products, which are covered by this standard (see Appendix G), they shall be marked on the product or its smallest package or its sales package, as follows "This product is suitable for students under 14 years old (including 14 years old)" or "Applicable age."

6.3 For the student's articles, which require warning signs or warning instructions, they shall be marked.

Appendix A

(Normative) List of harmful aromatic amines The list of harmful aromatic amines, in student's articles, is as shown in Table A.1.

Appendix B

(Informative) Design guidelines for the ventilation area of the pen sleeve A continuous air