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

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**Wood preservatives
(English Translation)**

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1 Scope

This Standard specifies the ratio of effective ingredients of water-borne wood preservative, and describes the content requirements for the effective ingredients in various forms (solid, paste or solution). This Standard includes the effective ingredients of organic solvent-based wood insect- resist agents, organic solvent-based wood preservatives, anti-mildew and anti-blushing agents.

This Standard applies to the production and use of wood preservatives.

2 Normative references

The articles contained in the following documents have become part of this document when they are quoted herein. For the dated documents so quoted, all subsequent modifications (including all corrections) or revisions made thereafter do not apply to this Standard. However, the parties who reach an agreement according to this Standard are encouraged to study whether the latest versions of these documents may be used. For the undated documents so quoted, the latest versions (including all modification sheets) apply to this document.

GB/T 14019-1992 Glossary of terms used in wood preservation

GB 190 Packing symbol of dangerous goods

GB 3796-1999 General rule for packing of pesticides

GB 12475-1990 Antitoxic regulations for storage-transportation, marketing and use of

pesticides

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in GB/T 14019-1992 as well as the following terms and definitions shall apply.

3.1 Effective ingredients

They are active ingredients in wood preservatives, which can inhibit the growing of wood-decaying fungus, mold, staining fungi, insects and marine animals in the wood.

4.1 Copper, chromium and arsenic (CCA-C)

4.1.1

The composition of CCA-C is shown in Table 1, calculated according to 100% oxide.
as follows.

Copper. copper sulfate;

Hexavalent chromium. potassium dichromate or sodium dichromate, chromium trioxide;

The purity of raw material compounds providing the substances listed in 4.6.1 shall be equal or greater than 95% according to the calculation of anhydrous substance; the pH value shall be 2.0

~ 3.9; the preservative shall be marked with the total content of ingredients listed in 4.6.1.

4.7 Copper citrate (CC)

4.7.1

The composition of CC is shown in Table 9.

Table 9 Composition of CC %

Effective ingredient Ratio

Copper (calculated by CuO) 62.3

Citric acid 37.7

Bivalent copper and citric acid shall be dissolved in the ammonia liquid, and the weight of ammonia contained in the treating liquid shall be at least equal to 1.4 times of that of copper oxide.

4.7.2

The content requirements of solid, paste, concentrate or treating liquid are shown in Table

10.

Table 10 Content Requirements of All Compositions of CC %

Effective ingredient Ratio range

Copper (calculated by CuO) ≥ 59.2

Citric acid ≥ 35.8

The sum of the content of all compositions in Table 10 shall be 100%.

4.7.3

The purity of raw material compounds providing bivalent copper and citric acid shall be equal or greater than 95% according to the calculation of anhydrous substance; the preservative shall be marked with the content of ingredients listed in 4.7.1.

5 Organic solvent-based wood insect-resist agents

Organic solvent-based wood insect-resist agents shall contain at least one of the following effective ingredients. deltamethrin, cypermethrin, permethrin, cyfluthrin, bifenthrin, chlorpyrifos, imidacloprid, fipronil, chlorfenapyr.

6 Organic solvent-based wood preservatives

Organic solvent-based wood preservatives shall contain at least one of the following effective ingredients. tebuconazole, propiconazole, cyproconazole, chlorothalonil, octahydroxylated copper oxine, 3-iodo-2-propynyl butylcarbamate (IPBC), tributyltin oxide (TBTO), tributyltin naphthenate (TBTN), Copper Naphthenate (CuN), Zinc Naphthenate (ZnN), 4,5-dichloro-2-hoctyl

-3(2H)- isothiazolone (DCOI).

7 Anti-mildew and anti-blushing agents

7.1

Anti-mildew and anti-blushing agents shall contain at least one of the following effective ingredients. chlorothalonil, octahydroxylated copper oxine, methylene bis thiocyanate (MBT),

TCMTB, Carbendazim, triabendazole (TBZ), benomyl, 3-iodo-2-propynyl butylcarbamate (IPBC), didecyl dimethyl ammonium chloride (DDAC), dodecyl benzyl dimethyl ammonium chloride (BAC), coco trimethyl ammonium chloride, propiconazole, 5-chloro-2-methyl-3(2H)-isothiazolone (isothiazolinone), fenpropimorph.

7.2

Anti-mildew and anti-blushing agents containing the effective ingredients listed in 7.1 shall be solution, emulsion and suspension.

7.3

Anti-mildew and anti-blushing agents shall be marked with the content of each effective ingredient.

8 Product mark, packaging, transportation and storage of

wood preservatives

8.1 Product mark of wood preservatives

8.1.1

The outer packaging of wood preservatives shall be marked with product logo (or trademark), the content of all compositions, net weight, production date, manufacturer name, address, telephone, fax, postal code.

8.1.2

The marks of the toxicity of wood preservatives shall comply with the provisions of GB 190.

8.1.3 Organic solvent-based wood insect-resist agents, organic solvent-based wood

preservatives, wood anti-mildew and anti-blushing agents shall have operating instructions, which shall include the reasonable concentration and the amount of preservatives.

8.2 Packaging, transportation and storage of wood preservatives

8.2.1

The packaging of wood preservatives shall comply with the provisions of 4.1, 4.3.1 and 4.4.2 in the Chapter 4 of GB 3796-1999.

8.2.2

Transportation and storage of CCA-C, organic solvent-based wood insect-resist agents, organic solvent-based wood preservatives, wood anti-mildew and anti-blushing agents shall comply with the provisions of Chapter 4 and Chapter 5 of GB 12475-1990. In addition to CCA-C, transportation and storage of other water-borne wood preservatives shall comply with the provisions of transportation and storage of general chemical products.

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