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

GB 5369-2008

Replacing GB 5369-1985

**General-specification for drinking water tank coating of
shipbuilding**

船用饮水舱涂料通用技术条件

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6	Ni/(mg/L) increased the amount of ≤ 0.002
7	No PAHs brown glass bottle 4 °C 8 without mixing organic brown glass bottle 4 °C
9	Cd/(mg/L) increased the amount of ≤ 0.0005
10	Silver/(mg/L) increased the amount of ≤ 0.005
11	Al/(mg/L) increased the amount of $\leq$
13	Styrene/(mg/L) increased the amount of ≤ 0.002
14	Epichlorohydrin/(mg/L) increased the amount of ≤ 0.002
15	Volatile Phenols/(mg/L) increased the amount of $\leq$
19	Benzene/(mg/L) increased the amount of ≤ 0.001
20	Total Organic Carbon (TOC)/(mg/L) increased the amount of $\leq$
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Foreword

The standard 3.2,

4.9 Appendix A. 4 and Appendix A. 5 compulsory, while other provisions are recommendatory. This standard replaces GB 5369-1985 "marine water tank paint general

technical conditions." This standard and GB 5369-1985 "marine water tank paint general technical conditions" compared to the main changes are as follows:

- a) cancel the original standard 1.1 "General requirements";
 - b) water tank coatings physical and chemical indicators of media resistance unit of time unified "h";
 - c) coating the soaking water soaking times the original standard "30 to 90d" to soak time "30d";
 - d) water tank coatings physical and chemical indicators increased fineness, solid content, drying time and storage stability of various items;
 - e) water tank coatings hygiene requirements to add "water quality should also be soaked in water LD50, Ames and chromosomal aberrations in mammalian cells Toxicology tests. "
- Appendix A of this standard is a normative appendix, Appendix B and Appendix C are informative appendices. The standard proposed by China Petroleum and Chemical Industry Association. This standard by the National Standardization Technical Committee paint pigment. This standard was drafted. China Shipbuilding Industry Corporation seventh twenty-five Institute, China Shipbuilding Industry Corporation Bohai Shipyard, Sea Army Medical Research Institute. The main drafters of this standard. Sun Zuxin, Suchun Hai, Wang Nanping, East Zhang Zhuang Yan, Xu Chunsheng, Xuxi Sheng. Marine water tank paint general technical conditions

1 Scope

GB 5369-2008 is the Chinese national standard on general-specification for drinking water tank coating of shipbuilding, in the field of paint and colour industries. 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 30 December 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 December 2009. Classification: ICS 87.040, CCS G51. 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 marine water tank coatings requirements, test methods, inspection rules, marking, packaging, transportation and storage. This standard applies to the coated surface of the coating system of the ship drinking water tanks.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 1724 Determination of the fineness of paint Determination of content of

GB/T 1725 Paints, varnishes and plastics non-volatile

GB/T 1728 film, putties drying time assay

GB/T 1731 Determination of film flexibility

GB/T 1733 Determination of water resistance of the film Determination of

GB/T 1771 Paints and varnishes resistance to neutral salt spray

GB/T 3186 Paints, varnishes and raw materials for paints and varnishes - Sampling

GB/T 5210 Paints and varnishes - Pull - off adhesion test

GB/T 5749 Standard for Drinking Water

GB/T 6753.3 paint storage stability test methods

GB/T 9750 product packaging and marking paint

GB/T 13491 General Paint Pack

3 Requirements

3.1 Physical indicators Coatings for drinking water tanks should be consistent with the physical and chemical indicators in Table 1. Table

4 Flexibility - - 3.1 4.4

5 Adhesion - - 3.1 4.5 6 salt spray resistance - - 3.1 4.6 7 water resistance - - 3.1 4.7 8.

Storage stability - - 3.1 4.8 9 health requirements - - 3.2

4.9 NOTE. - should review the project; - not seized items. 6 marking, labeling, packaging, transportation and storage

6.1 mark Water tank coating product logo should meet the GB/T 9750 requirements.

6.2 Label Water tank paint products should bear a label indicating the product standard number, type, name, quantity, quality certification mark, manufacturer name, production Date and lot number.

6.3 Packaging Drinking water tank paint product packaging shall comply with GB/T 13491 requirements.

6.4 Transport Water tank coatings products in transportation should prevent rain, sunlight exposure.

6.5 Storage Water tank paint products should be stored in ventilated, dry coffer, to prevent direct sunlight, and should isolate the source of fire. Product in its original packaging Closed condition, more than one year storage period can be factory inspection items specified in this standard inspection, such as inspection, it can still be used.

4.2.1 Test Project

- a) gene mutation test. Ames test;
- b) mammalian chromosome aberration test. In vitro mammalian chromosome aberration, or mouse bone marrow cell chromosome aberration test, Or mouse bone marrow micronucleus test optional one. C.

4.2.2 Evaluation Results

- a) If the above two tests were negative, you can;
- b) If the above two tests were positive, the product can not be, or chronic test for further evaluation;
- c) If the above two tests have a positive, we need to choose the other two genotoxicity tests as a supplement comprising a gene Mutation assay and mammalian cell chromosomal aberration test. If you are negative, then the product can be subject to a positive It can not be sexual, or chronic test for further evaluation. C.

4.3 Level II level selected when the dissolution substance concentration in water of not less than 10µg/L to not more than 50µg/L. C.

4.3.1 Test Project

- a) level I test;
- b) oral toxicity tests in rats 90d. C.

4.3.2 Evaluation Results

- a) Evaluation of Genetic Toxicology test results with the level I;
- b) through 90d oral toxicity tests in rats to determine the substance dissolved in water is the maximum allowable concentration (safety factor generally used 1000);
- c) When the actual concentration of dissolved substances in the water exceeds the maximum allowable concentration, it can not pass. C.

4.4 level III level selected when the dissolution substance concentration in water of not