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

GB/T 18420.2-2009

Replacing GB/T 18420.2-2001

**Biological toxicity for pollutants from marine petroleum
exploration and exploitation - Part 2: Test method**

海洋石油勘探开发污染物生物毒性 第2部分：检验方法

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Foreword

"Offshore Oil Exploration and Development pollutant toxicity" is divided into two parts.

--- Part 1. Classification;

--- Part 2. Test methods. This is Part 2. This Part replaces GB/T 18420.2-2001 "marine pollutant biological toxicity test method of petroleum exploration and development." This section compared with the GB/T 18420.2-2001 The main changes are as follows:

--- The terms and definitions of the terms "96h changing the water biological toxicity test" and modify the definition of "hydrostatic biological toxicity test" (2001 version 3.2, this version 3.1), an increase of "EC50" Terms and Definitions (edition 3.4);

--- In the "sampling, sample preservation and sample" added details about a "radical solution" of (this version

5.1.1 and 5.1.2.2);

--- In the "Experimental Biology" increased four biological experiments and related content (edition

6.1 to 6.4) a chapter;

--- To increase the "base fluid" and "synthetic drilling fluid" method of preparation of stock solution (Excerpts 8.1.2.1.3 and 8.1.2.2);

--- Increased to grow as observations related to the operation of biological toxicity test methods (this edition 8.4.6.2.2);

--- Revised part of "validity of the results" (2001 version 10.1, this version 9.1);

--- Increased partial example of a method of data processing and calculation results in the appendix, as well as original records growth toxicity test table (Excerpts Appendix A ~ Appendix F). Appendix B to this part of the normative appendix, Appendix A, Appendix C, Appendix D, Appendix E, Appendix F, Appendix G is an informative annex. This part by the State Oceanic Administration. This part of the National Standardization Technical Commission for Oceanography (SAC/TC283) centralized. This section is drafted. Guangdong Experimental Animals Monitoring Institute of the South China Sea Branch of the State Oceanic Administration. Drafters of this section. Huang Ren Wei community forest, Wujin Xiao, Zheng Yanjing, Wang Ying, Wang Guodong, Zhou Jin. This part of the standard replaces the previous editions are.

--- GB/T 18420.2-2001. Offshore oil exploration and exploitation of biological toxicity of pollutants Part 2. Test methods

1 Scope

GB/T 18420.2-2009 is the Chinese national standard on biological toxicity for pollutants from marine petroleum exploration and exploitation - part 2: test method, in the field of environment and health protection, safety. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 11 March 2009 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 November 2009. Classification: ICS 13.030.20, CCS Z17. 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 section provides offshore oil exploration and exploitation and discharged after use or generate pollutants in the marine part of the biological toxicity test Testing methods, and test method treatment, biological experiments, test procedures for sample results to determine the quality control requirements. This section applies to offshore oil exploration and exploitation in the use or generation and into the sea after drilling base fluids, drill cuttings and produced water Biological toxicity testing, biological toxicity tests in this section defining an outer pollutants can refer to use.

2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this part. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this section, however, encourage the parties to this part of the research agreement Whether the latest versions of these documents. For

undated reference documents, the latest versions apply to this section.

GB 17378.3 specification for marine monitoring Part 3. Sample collection, storage and transportation

GB 17378.4-2007 specification for marine monitoring Part 4. Seawater Analysis

3 Terms and Definitions

The following terms and definitions apply to this section.

3.1 During the test does not replace the internal test solution was observed to measure the biological effects test abnormalities or death.

3.2 Biological experiments after exposure to different concentrations of a test solution of a predetermined time, the adverse effects observed by the biological experiments and comparative test Group and the control group, statistical analysis, determined that no significant effect on the maximum concentration of Experimental Biology.

3.3 LC

50 In certain observation period, resulting in a 50% concentration of toxicant test biological death. [GB 17378.7-2007, the definition 3.10]

3.4 EC

50 In certain observation period, causing 50% of the test organisms in a particular effect or an effect index is suppressed a biological experiment Toxicant concentration and a half to EC50 expressed. Principle

4 Various physiological activities of marine organisms by marine environmental impact, measured by observing the biological experiments in a certain period of contact with the test Test substance Abnormal or qualitative effect after death, obtain offshore petroleum exploitation specific pollutant concentrations had a significant effect on the test organisms.