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

GB/T 4797.3-2024

Replacing GB/T 4797.3-2014

**Classification of environmental conditions - Environmental
conditions appearing in nature - Part 3: Living organisms**

环境条件分类 自然环境条件 第3部分：生物

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting:

This document is Part 3 of GB/T 4797: GB/T 4797 has been published in the following parts:

--- Classification of environmental conditions Natural environmental conditions Temperature and humidity (GB/T 4797.1-2018);

--- Classification of environmental conditions Natural environmental conditions Air pressure (GB/T 4797.2-2017);

- Classification of environmental conditions Natural environmental conditions Solar radiation and temperature (GB/T 4797.4-2019);
- Classification of environmental conditions Natural environmental conditions Precipitation and wind (GB/T 4797.5-2017);
- Classification of environmental conditions Natural environmental conditions Dust, sand, salt spray (GB/T 4797.6-2013);
- Classification of environmental conditions for electrical and electronic products Natural environmental conditions Earthquake, vibration and shock (GB/T 4797.7-2008);
- Environmental conditions classification Natural environmental conditions Shock and vibration data measured during storage, transportation and use (GB/T 4797.9-2021):

This document replaces GB/T 4797.3-2014 "Biological conditions of natural environment for electrical and electronic products" and is consistent with GB/T 4797.3-2014:

In addition to structural adjustments and editorial changes, the main technical changes are as follows:

- a) Change "Main impacts of organisms on electrical and electronic products" to "Overview" to summarize the impacts of organisms on electrical and electronic products (see Section 4 Chapter 3 of the:2014 edition);
- b) Deleted "Occurrence of Fauna and Flora" (see Chapter 4 of the:2014 edition);
- c) The content of "Species and distribution of harmful organisms" was changed to "Species and hazards of harmful organisms" (see Chapter 5,:2014 edition, chapter);
- d) Combine the "Principles of Division of Biological Environmental Conditions" and "Division of Biological Environmental Conditions Regions" into "Division of Biological Environmental Conditions Regions in my country":

The distinction between algae and marine organisms was added (see Chapter 6, Chapter 6 and Chapter 7 of the:2014 edition):

This document is modified to adopt IEC 60721-2-7:2018 "Classification of environmental conditions Part 2-7: Natural environmental conditions Fauna and flora group":

The technical differences between this document and IEC 60721-2-7:2018 and their reasons are as follows:

- Added the description of fungal growth in water (see 5.1:2), which more comprehensively describes the growth of fungi in water;
- Deleted the "Distribution map of fungi in the world" (see Figure 1), which was not clearly defined, and added the biological conditions of my country:

Divide;

--- Added the impact of fungi on silicone rubber materials (see 5.1:4): my country's special environmental conditions will accelerate the impact of fungi on silicone rubber;

--- Added specific types and hazards of algae (see 5.5): This type of organism has a great impact on my country's electrical and electronic products:

important;

--- Added the division of my country's biological environmental conditions (see Chapter 6), which provides important information for the design of my country's products:

Basis for relevant environmental test methods:

The following editorial changes were made to this document:

--- In order to coordinate with the existing standards, the name of the standard was changed to "Classification of Environmental Conditions Natural Environmental Conditions Part 3: Biological

Introduction

Environmental conditions are used as background materials for selecting appropriate severity levels when testing and applying products, and are important for the evaluation, use and for different natural environmental conditions (such as temperature and humidity, air pressure, precipitation and wind), separate environmental conditions are given:

And the possible impact on the product: GB/T 4797 is planned to consist of the following 10 parts:

--- Part 1: Temperature and humidity: The purpose is to give the outdoor climate type expressed in temperature and humidity parameters:

--- Part 2: Air pressure: The purpose is to give the air pressure values at different altitudes in the natural environment:

--- Part 3: Biology: The purpose is to give the biological environmental conditions that affect electrical and electronic products under natural environmental conditions:

--- Part 4: Solar radiation and temperature: The purpose is to give the climate types classified by solar radiation regions:

--- Part 5: Precipitation and wind: The purpose is to give the characteristics of precipitation and wind related to electrical and electronic products:

--- Part 6: Dust, sand and salt spray: The purpose is to give the characteristics of dust, sand and salt spray that occur in nature:

--- Part 7: Seismic vibration and shock: The purpose is to give the environmental conditions under natural seismic vibration and shock:

--- Part 9: Shock and vibration data measured during storage, transportation and use: The purpose is to give the basic Parameters and values:

--- Part 10: Lightning: The purpose is to give the lightning environment conditions that affect electrical and electronic products in the natural environment:

--- Part 11: Condensation: The purpose is to give the condensation environmental conditions that affect electrical and electronic products under natural environmental conditions:

This revision of GB/T 4797.3 adds the division of biological environmental conditions in my country and improves the applicability of the standard:

It will be consistent with the level of international standards, which will help eliminate technical trade barriers and better promote trade, exchanges and technological cooperation:

Environmental conditions classification Natural environmental conditions Part 3: Biology

1 Scope

This document gives the biological environmental conditions that affect electrical and electronic products under natural environmental conditions:

At any time, you may be affected or harmed by creatures: In addition, there are many creatures with different attack behaviors:

This document addresses all areas where organisms may be harmful to the storage, transportation or use of products:

Both natural and artificial environments can damage the product, such as in warehouses or buildings: However, plants are primarily exposed to the open air:

Fungi and bacteria can exist in open areas as well as in warehouses or buildings:

This document is intended to be used as background material when selecting appropriate biological conditions for a product:

2 Normative references

This document has no normative references:

3 Terms and definitions

There are no terms or definitions that require definition in this document:

The URLs for terminology databases used for standardization maintained by ISO and IEC are as follows: