



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

GB/T 2423.18-2021

**Environmental testing - Part 2: Test methods - Test Kb: Salt
mist, cyclic (sodium chloride solution)**

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Table of Contents

Foreword...	3
Introduction...	5
1 Scope...	7
2 Normative references...	7
3 Terms and definitions...	7
4 General description of the test...	8
5 Test apparatus...	9
6 Salt solution...	9
7 Initial measurements...	10
8 Preconditioning...	10
9 Testing...	10
10 Recovery (at the end of testing)...	15
11 Final measurements...	15
12 Information to be given in the relevant specification...	15
13 Information to be given in the test report...	15

Foreword

This document is drafted in accordance with GB/T 1.1-2020 "Directives for standardization - Part 1.Rules for the structure and drafting of standardizing documents".

This document is Part 18 of GB/T 2423.For the issued parts of GB/T 2423, see Annex NA.

This document replaces GB/T 2423.18-2012 "Environmental testing - Part 2. Test methods - Test Kb. Salt mist, cyclic (sodium chloride solution)". Compared with GB/T 2423.18-2012, in addition to structural adjustment and editorial changes, the main technical changes are as follows.

- a) Add a description of the effect of test conditions on the specimens (see Clause 4);
- b) Add the cycle process of test methods 7 and 8 (see Clause 9);

c) Modify Figure 1;

d) Add "Information to be given in the test report" (see Clause 13).

This document, using translation method, is identical to IEC 60068-2-52.2017 "Environmental testing - Part 2-52.Tests - Test Kb. Salt mist, cyclic (sodium chloride solution)".

China's documents which have a consistent correspondence with the international documents normatively referenced in this document are as follows.

- GB/T 2421-2020 Environmental testing - General and guidance (IEC 60068-1.2013, IDT);
- GB/T 2423.3-2016 Environmental testing - Part 2.Testing method - Test Cab. Damp heat, steady state (IEC 60068-2-78.2012, IDT);
- GB/T 10125-2012 Corrosion tests in artificial atmospheres - Salt spray tests (ISO 9227.2006, IDT).

This document has made the following editorial changes.

- a) Change the name of this document to "Environmental testing - Part 2.Test methods - Test Kb. Salt mist, cyclic (sodium chloride solution)";
- b) Add an informative annex "Constituent documents of GB/T 2423" (see Annex NA).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The issuing authority of this document shall not be held responsible for identifying any or all such patent rights.

This document was proposed by and shall be under the jurisdiction of National Technical Committee 8 on Environmental Conditions of Electric and Electronic Products and Environmental Test of Standardization Administration of China (SAC/TC 8).

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The previous releases of this document and the documents it replaces are as
follows.

- It was first issued in 1985 as GB/T 2423.18-1985, first revised in 2000, and
second revised in 2012;
- This is the third revision.

1 Scope

This document specifies the application of the cyclic salt mist test to
components or equipment designed to withstand a salt-laden atmosphere as
salt can degrade the performance of metallic and/or non-metallic materials.

This document is applicable to components or equipment that can withstand a

salt-laden atmosphere.

2 Normative references

The contents of the following documents, through normative references in this text, constitute indispensable provisions of this document. Among them, for dated references, only the edition corresponding to that date applies to this document. For undated references, the latest edition (including all amendments) applies to this document.

ISO 9227 Corrosion tests in artificial atmospheres - Salt spray tests

IEC 60068-1 Environmental testing - Part 1. General and guidance

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses.

4 General description of the test

Heated air in the chamber may cause evaporation of water from the test specimen surface from decreasing relative humidity and increased specimen temperature.

As the relative humidity increases, precipitated salt crystals on the specimen surface absorb water vapour until a liquid electrolytic solution forms, reinitializing the corrosion process.

The test specimen is allowed to equilibrate with standard laboratory conditions, which results in gradual drying and relaxation from most corrosion reactions.

5 Test apparatus

The chamber shall conform to the requirements of ISO 9227. It shall maintain a temperature of 35 °C +/- 2 K.

The chamber shall conform to the requirements of IEC 60068-1. It shall maintain a relative humidity of 50 % +/- 5 % at a temperature of 23 °C +/- 2 K.