

ICS 13.300
CCS A 80



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

GB/T 43545-2023

**Safety specification for inspection of dangerous goods-Super
capacitors**

危险货物检验安全规范 超级电容器

Issued on: December 28, 2023

Implemented on: January 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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Foreword

This document complies with the provisions of GB/T 1:1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting:

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This document is proposed and coordinated by the National Standardization Technical Committee for the Management of Hazardous Chemicals (SAC/TC251):

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Safety Code for Dangerous Goods Inspection Supercapacitors

1 Scope

This document specifies the transportation hazard classification rules, classification requirements and inspection rules for supercapacitors, and describes the corresponding testing method:

This document is applicable to the transportation hazard classification inspection of supercapacitors:

2 Normative reference documents

GB 6944

3 Terms and definitions

The following terms are defined in GB 6944 and the "Recommendation on the Transport of Dangerous Goods, Model Regulations" (hereinafter referred to as the "Model Regulations") and definitions apply to this document: 3:1 supercapacitorsupercapacitor Between ordinary capacitors and batteries, at least one electrode uses a double electrical layer to store energy: During constant current charging or discharging, The time versus voltage curve is usually approximately linear for electrochemical energy storage devices:

Note: In this document, the term "capacitor" is used when special emphasis on "supercapacitor" is not required:

[Source: GB/T 34870:1-2017, 3:3, with modifications] 3:2 High specific surface area materials are used as the main electrode materials, and a double electric layer is formed by polarizing the electrolyte to store energy, and there is no Radic reaction:

The relationship between time and voltage during current charging and discharging is approximately linear, and the rated lower limit voltage of the capacitor is 0V:

[Source: GB/T 34870:1-2017, 3:4, with modifications] 3:3 One pole is an electrical double layer and the other pole is a non-electric double layer: Energy is stored through the polarization of the electrolyte to form a double electrical layer and Faradaic reaction: During constant current charging and discharging, The relationship between time and voltage during the electrical process is approximately linear, and capacitors usually have a rated lower limit voltage other than 0V: 3:4 monomer cel The basic unit of a capacitor is an assembly composed of electrodes, diaphragms, electrolytes, terminals and outer packaging:

[Source: GB/T 34870:1-2017, 3:8, with modifications]