



The latest trends, services & promotions

CHINA PUBLISHES GB 24427-2021 FOR ZINC-ANODE BATTERIES

Batteries are widely used in consumer electronic products. If the batteries are disposed irresponsibly, they may end up in landfills and the hazardous substances within, such as heavy metals, will pollute the soil and groundwater, eventually threaten human health.

Until now, many countries or regions worldwide have established regulations or standards in place to control the situation, including China.



SGS battery testing services can identify your target market regulations for cells, batteries, and modules to ensure compliance with contractual or regulatory requirements.

Please contact our Customer Service Team for more information!

On April 30, 2021, the State Administration for Market Regulation (SAMR) and the Standardization Administration of the P.R.C.(SAC) published GB 24427-2021 “Content limitation of Mercury, Cadmium and Lead for Zinc Anode Primary Battery”.

GB 24427-2021 will repeal GB 24427-2009 “Limitation of mercury, cadmium and lead contents for alkaline and non-alkaline zinc manganese dioxide batteries” and GB 24428-2009 “Limitation of mercury content for zinc silver oxide, zinc oxygen and zinc manganese dioxide button batteries”.

GB 24427-2021 specifies the concentration limits, test methods and compliance determination requirements of mercury, cadmium and lead contents in standardized zinc manganese dioxide batteries, zinc silver oxide batteries and zinc air batteries. GB 24427-2021 includes many major amendments, the limitation of mercury, cadmium and lead for standardized batteries are as follows:

| BATTERY TYPE | MERCURY (µg/g) | CADMIUM (µg/g) | LEAD (µg/g) |
|---|----------------|----------------|-------------|
| Zinc-silver oxide button cells (Old Model) | ≤5 | ≤40 | ≤200 |
| Zinc-silver oxide button cells (New Model) | | | |
| Alkaline zinc-air button cells | ≤5 | ≤40 | ≤500 |
| Alkaline zinc-manganese dioxide button cells | ≤5 | ≤20 | ≤40 |
| Non-alkaline zinc-manganese dioxide batteries | ≤1 | ≤100 | ≤1000 |
| Alkaline zinc-manganese dioxide batteries | ≤1 | ≤10 | ≤40 |

Notes:

1. Not all the battery types are listed here due to large quantity of existing models, please refer to the standard for more details.
2. Non-standardized zinc-silver oxide, zinc-air and zinc-manganese dioxide batteries shall also comply with the limitation of mercury, cadmium and lead listed in the above table

In addition, according to the new standard, the test method for mercury, cadmium and lead content in batteries is GB/T 20155, and the compliance determination should base on the results of parallel testing of two samples in the same batch. Besides, the new standard also specified the labelling requirements for batteries. GB 24427-2021 will become effective on November 1, 2021.