



ABSTRACT

The present invention provides a steel sheet material used for a positive electrode can and a positive
5 electrode can for an alkaline manganese battery capable of improving the battery characteristics for an alkaline manganese battery, characterized in that the plated steel sheet for a positive electrode can for an alkaline
10 manganese battery has Ni-based diffusion plating layer having on the top layer many small pinholes of diameter not greater than 1 μm , i.e. submicron pinholes, formed on the surface of the steel sheet to be used as an internal surface of the can. Said submicron pinholes preferably have, as observed by SEM, diameter in the range of 0.1 ~
15 1 μm and are present at density not less than 30 pcs/(10 $\mu\text{m} \times 10 \mu\text{m}$). The surface of the steel sheet to be used as an external surface of the can preferably has a Fe-Ni diffusion plating layer and a Ni plating layer that has been softened by recrystallization.

