

OSM-BAT DECISION

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| Standard: EN 62133-2:2017+ AMD1:2021 | Sub clause: 9.1; 9.2 | Sheet No.: DSH 1046A |
| Subject: Cell and Battery marking | Key words: Marking, cell, battery | Meeting: Frankfurt 2024 |
| Question: <p><i>IEC 62133 / IEC 62133-2 refers to Clause 5.1 of IEC 61960 / IEC 61960-3 for cell and battery designation.</i></p> <p><i>Clause 5.1 of IEC 61960 / IEC 61960-3 requires the use of I or L for the designation of the negative electrode (A1) of the cell (or battery) and more precisely, L can be used when the negative electrode is a metal lithium or any other alloy of lithium.</i></p> <p><i>For the positive electrode designation (A2), several metal elements have been listed, without the possibility of usage of their alloy. This situation raises four questions regarding the designation of A2, the positive electrode.</i></p> <p><i>1) What can be A2 in case of any alloy of each of the listed metal elements?</i></p> <p><i>2) What can be A2 in case of an alloy composed of two or more of these listed elements?</i></p> <p><i>3) How shall the designation be handled for the positive electrode, if made with elements other than these listed elements?</i></p> <p><i>4) How shall a positive electrode be designated if it is an alloy of elements other than these listed elements?</i></p> | | |
| Decision: <p>The following applies to above questions 1 to 4: A2 designates the positive electrode basis with:</p> <ul style="list-style-type: none"> - C for cobalt; - F for iron; - Fp for iron in phosphate; - N for nickel; - M for manganese; - Mp for manganese in phosphate; - T for titanium; - V for vanadium; - X for any other material. | | |
| Explanatory notes: <p>The A2 designations provided above are derived from IEC 61960-3:2017. For electrodes based on multiple materials, the one with the highest composition is used. For example, use "N" as A2 for Ni : Co : Mn = 5 : 3 : 2. Electrodes with same composition ratio, e.g. Ni : Co : Mn = 1 : 1 : 1, even if attempted to make it happen, are extremely unlikely in practice as the composition would always be slightly uneven. Therefore the material with the highest composition could still be identified by manufacturer.</p> | | |