

Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Sub-Committee of Experts on the Transport of Dangerous Goods

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Item 4 (e) of the provisional agenda

Electric storage systems: miscellaneous

Remarks to document ST/SG/AC.10/C.3/2013/13 Amendments regarding lithium

Transmitted by the expert from Austria

Introduction

1. Lithium content means the mass of lithium in the anode....
2. Anode and cathode is defined by the type of reaction (oxidation or reduction) and so the anode during discharging is the cathode during charging. For rechargeable batteries we can by definition use the terms at discharge. So the existing text is correct and the lithium metal, lithium alloy or lithium-graphite compound is really the anode.
3. But I agree that the wording is confusing and propose to use “negative electrode”, so that no doubt is possible.
4. To use the lithium content of the negative electrode as well as the lithium in the positive electrode and the lithium in the electrolyte is not justified.
5. The lithium compounds in the positive electrode are e.g. LiMnO_2 or LiCoO_2 and such a compound has no hazard comparable to lithium. There might be some excess of lithium metal oxide in the positive electrode that remains there if the batterie is fully charged, but this will not represent any hazard typical for lithium. This is true for salts like LiPF_6 in the electrolyte as well.

Proposal

6. My proposal is to change only “anode” to “negative electrode” and keep the rest as it stands.
