



RÉPUBLIQUE  
FRANÇAISE

*Liberté  
Égalité  
Fraternité*

**SIG TP - 3**



*maîtriser le risque  
pour un développement durable*

## ***Scope of TP test***

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## Scope of TP test

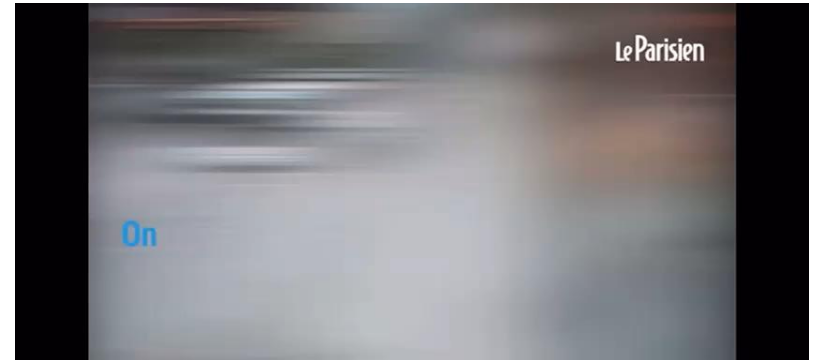
- Curent scope: "REESS containing **flammable electrolyte**" (6.15).

*"Flammable electrolyte" means an electrolyte that contains substances classified as Class 3 "flammable liquid" under "UN Recommendations on the Transport of Dangerous Goods – Model Regulations (Revision 17 from June 2011), Volume I, Chapter 2.3"[2] (2.23)*

- Proposed scope: "REESS containing cells that can enter in TR" or simply "REESS"

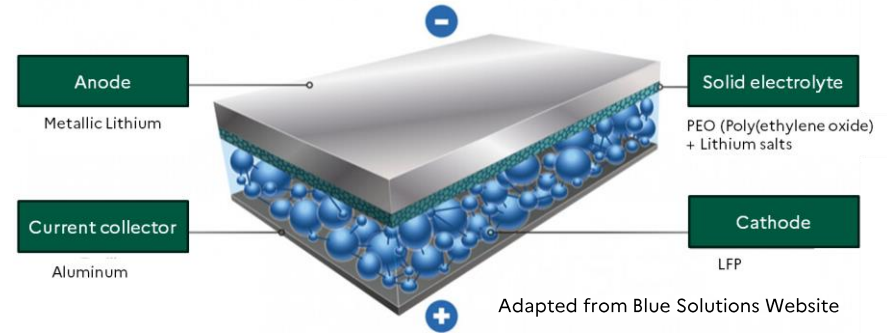
- Why ?: REESS that **does not contain** flammable electrolyte can enter in thermal runaway and can cause serious incident.

- Example of incident involving such REESS
  - Paris April 4<sup>th</sup> and 29<sup>th</sup> 2022



## Details on those incidents

- Involving Li-metal Polymer batteries containing PEO electrolyte (not a flammable liquid)
- Preliminary report<sup>1</sup> confirms that the batteries are at the origin of the fire
- Preliminary conclusions<sup>1</sup> states that the most likely hypothesis lies in a short-circuit between cells or within certain cells
- Preliminary report<sup>1</sup> states that no alarms or warning signs alerted the drivers of any anomaly that might present a risk of fire outbreak.



- Similar issues could rise from future technologies such as “all solid-state batteries” (ASSB) containing Li-metal currently still at research stage but aiming the EV market.

1- [https://www.bea-tt.developpement-durable.gouv.fr/IMG/pdf/beatt\\_2022\\_02\\_bus-paris-ratp\\_note-info.pdf](https://www.bea-tt.developpement-durable.gouv.fr/IMG/pdf/beatt_2022_02_bus-paris-ratp_note-info.pdf)

## Conclusions

- These technologies should be included in the scope of the TP test to prevent any new incident
- Can such REESS be triggered by one of the triggering method described in the draft ? A feedback from other TS/industry would be really helpful.