

Distributions Class 1 General

Technical Notice

Transport Regulations for Lithium Metal Batteries

1. Exemptions

Lithium Ion Batteries are dangerous goods, UN No. 3480. Therefore they are generally subject to transport regulations, depending on the transport mode. However, most Tadiran Lithium Ion Batteries listed in the product data catalogue are exempted from the regulations if the following conditions are given:

- The batteries have not more than 100 Wh nominal energy, each cell not more than 20 Wh nominal energy (Table 1).
- The batteries have passed the UN tests (Table 1).
- The batteries shall be packed in inner packagings that completely enclose them. They shall be protected so as to prevent short circuits.
- ADR/RID/IMDG-Code: The gross mass does not exceed 30 kg per package.
- The packaging shall be strong and capable of withstanding a 1.2 m drop test.
- For more conditions see special provision 188 (ADR/RID/IMDG-Code) and Packing Instructions 965-967 (IATA DGR).
- Air transport (IATA DGR): Lithium Ion Cells and Batteries must be offered for transport at a state of charge (SoC) not exceeding 30 % of their rated design capacity. (effective 01.04.2016)
- For more information consult <https://tadiranbatteries.de>

2. Classification of lithium Ion Batteries

Table 1 shows Tadiran's Lithium Ion Batteries and which of them are exempted from the dangerous goods regulations and which are not.

Model	Exempted	Nominal energy Wh	UN Tests passed
TLI-1020A	Yes ¹⁾	0.12	Yes
TLI-1520A	Yes ¹⁾	0.32	Yes
TLI-1530A	Yes ¹⁾	0.6	Yes
TLI-1550 (all types)	Yes ¹⁾ ²⁾	<3.6	Yes
1) If conditions mentioned in the text are fulfilled			

Table 1 Classification of Tadiran's Lithium Ion Batteries

3. UN tests

Table 1 also shows the status of UN-tests for Tadiran Lithium Ion Batteries according to the UN Manual of Tests and Criteria, part III, sub-section 38.3.

A UN Test Summary Report can be downloaded at <https://tadiranbatteries.de>

It is necessary to refer to the listed regulations and instructions for detailed information. They are revised on a regular basis.

The applicable documents are:

- ADR: Agreement concerning the International Carriage of Dangerous Goods by Road,
- IATA DGR: International Air Transport Association, Dangerous Goods Regulations,
- ICAO: International Civil Aviation Organization, Technical Instructions for the Safe Transport of Dangerous Goods by Air,
- IMDG Code: International Maritime Dangerous Goods Code,
- RID: International Statutory Order on the Conveyance of Dangerous Goods by Rail,
- UN: United Nations Recommendations on the Transport of Dangerous Goods.