



THE MANAGEMENT OF ACID SUBSTANCES

The Legislative Decree n° 20 of January 24th, 2011 establishes the quantity of absorbing and neutralizing substances that all facilities, dedicated to storage, recharge, maintenance and replacement of batteries, must keep in case of leakage of the acid solution.

In particular:

- Absorbing and neutralizing substances must be previously tested by Universities and qualified Institutes.
- In the certification of functional response, it is necessary to specify the quantity of product needed for the complete absorption and neutralization of a liter of acid solution that, being reasonably referred to charged elements, has a density of about 1,27 kg/dm³.
- For elements where the electrolyte is in a gelatinous form (gel batteries), the quantity of product needed to neutralize the volume unit remains unaltered. This is because the elements contain, at equal capacity, the same quantity of electrolyte substance, liquid or gelatinous, with equal percentage of sulfuric acid.
- The tested product must be used following the manufacturer instructions and mandatorily replaced before its expiration date, that must be clearly indicated on each container.

The regulation establishes the following legal obligations for the different situations:

CHARGING STATIONS

In all areas dedicated to the efficiency renovation of unloaded batteries, where the charging appliances (Rectifiers) are located, it is mandatory to stock a certain quantity of extinguish substances, to face emergency situations due to the accidental spill of the acid solution. This quantity must provide the complete neutralization of:

SMALL CHARGERS (up to 5 batteries) - 50% of the electrolyte contained in the battery with the highest level of acid contents;

MEDIUM CHARGERS (up to 20 batteries) - 100% of the electrolyte contained in the battery with the highest level of acid contents;

BIG CHARGERS (more than 20 batteries) - 200% of the electrolyte contained in the battery with the highest level of acid contents

In all areas dedicated not only to batteries charging operations but also to exhausted batteries replacement (using tackles, rollers, lift trucks, etc.), the above quantities must be doubled. Moreover, all users of battery electrical appliances must compulsorily own the manufacturer declaration of the acid solution contents (expressed in litres) of each battery inserted in the appliance and unequivocally identified by its serial number.

For the dealers, the rules are different and more specifically:

STARTER BATTERIES

Considering the different number of handled batteries and the different types of handling and manipulation operations required to carry out each activity, the absorbing and neutralizing certified substance that must be compulsorily kept to face an emergency caused by possible spills, must correspond to the quantity needed to completely extinguish the following acid solution volumes:

- WHOLESALE WAREHOUSES - 200 litres (Representative Agencies in general)
- RETAIL WAREHOUSES - 100 litres (Spare parts dealers, car and motorcycle dealerships)
- CHARGING AND REPLACEMENT STORES - 25 litres