



## Maintenance of the devices

With time, **calcareous deposits** form on the electrodes (metal plates) of Antenna-WATA devices. In order to **ensure an optimal lifetime** to the device and to **sustain its production rate** of active chlorine, **it is very important to maintain it regularly**.

The maintenance frequency depends on the water hardness (calcium and magnesium contents): the harder the water, the more frequent has to be the maintenance. Calcareous deposits are easily observed by the naked eye (white layer between the metal plates) on the WATA and Maxi-WATA.

### Mini-WATA and WATA

We advise to proceed to the maintenance of the devices **after about 150 hours** of functioning (or one week working continuously)

1. Fill a recipient with **lemon juice** or **vinegar**
2. Immerse the device overnight – **Do not rub**
3. Rinse the device with clear water, dry it and store it

### Maxi-WATA

One can choose to use either **hydrochloric acid** (HCl), or **sulphuric acid** (battery acid,  $H_2SO_4$ ). Both have to be diluted 10 times.

#### Preparation of diluted acid

**! Wear gloves and glasses when handling acids !**

- Prepare a large enough plastic or ceramic recipient
- Pour **9 volumes of water** in the recipient
- Stirring gently, add slowly **1 volume of concentrated acid** (from retail)
- Store the diluted acid in labelled glass bottles or plastic containers

**! Make sure to store diluted and concentrated acids out of reach of children !**

#### Maintenance protocol

1. Take a large enough (about 25 litres) plastic recipient and lay down the Maxi-WATA into it
2. Pour diluted acid until it completely covers the body of the device. Let the rods rise above the liquid

**The device has to be disconnected from the electric alimentation during maintenance !**

3. Let react during several hours until calcareous deposits are no more visible – **Do not rub**
4. Take the device out of the acid bath and rinse it carefully with water
5. Collect the diluted acid for further use. On the label of the storage recipient, note down how many maintenances have been performed (a single bath of diluted acid can serve at least 15 times)

#### Elimination of diluted acid

- A. Few litres of diluted acid that have been used about 20 times can be eliminated without danger, poured it into a ground hole. Then, just fill the hole with earth. For such little amounts, this operation is absolutely harmless and non-pollutant.
- B. For larger amounts, it y necessary to neutralise the acid by adding about 1 kg of wood ashes or lime for every 100 litres of diluted acid. Once neutralised, the solution is harmless and can be eliminated like wastewater.